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EXAMINER

COLON SANTANA, EDUARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,380

Applicant(s)

TRACY, DENNIS A.

Examiner

Eduardo Colon-Santana

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 20 is/are rejected.
- 7) ☒ Claim(s) 8-10, 15 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/11/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. New corrected drawings are required in this application because the character of lines, numbers and letters are not uniformly thick and well define, clean, durable and there is poor line quality, also solid black shading, shade lines, pale, rough and blurred are not permitted, in addition to having poor figure legends and reference characters not plain and legible (see 37 CFR 1.84(i), 1.84(m) and 1.84(p)). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "In page 15, line 23, reference (#24) and in page 18, line 15, reference (#128)". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: "In page 10, line 10, driver magnet (66) should say (68); in page 12, line 11, second driver unit (72) should say (74); in page 13, line 11, first long side (78) should say (74); in page 14, line 2, driver unit support housings 52, 80 should say 50,74.

Appropriate correction is required.

Claim Objections

4. Claims 15 and 19 are objected to because of the following informalities: "Claim 15 does not end in a period and claim 19 depends on itself". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Proni U.S. Patent No. 5,687,247.

Art Unit: 2837

As to claim 20, Proni discloses a surround for a loudspeaker (see Figure 2). Proni further discloses a loudspeaker driver (#50) having a cone (#76) couple to a magnet (#54) for driving the cone to produce sound, wherein the cone has a concave first side and a convex second side. Proni further discloses a speaker basket (#52) defining a frame and a cover (#70) enclosing the frame so as to enclose the second side of the cone.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tracy U.S. Patent No. 5,874,695 in view of Kato et al. U.S. Patent No. 4,993,510.

As to claim 1, Tracy discloses a speaker assembly (#10) as claimed (see figure 1 and respective portions of the specification). Tracy discloses a speaker housing (#12) having a close top wall (#16) and an opposed open end (#32). Tracy

Art Unit: 2837

additionally discloses a first and second sound source (#34 and #56) mounted within the speaker housing having a first and second cover member (#52 and #66). However, Tracy does not teach nor disclose that the cover members are part of a first and second support housing wherein the first and second sound source are positioned between the first and second support housing and the closed top wall respectively. On the other hand, Kato et al. discloses mobile speaker fixing device wherein a sound source (#31) is positioned between a housing #30 and a top wall #20 (see figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to position a sound source between a housing and a wall for the purpose/advantages of securing a speaker within and not use bolts or fasteners which could increase cost and weight to the assembly.

As to claim 2, Tracy describes the cover member as absorptive foam pad, which characterize an acoustic piece.

Referring to claim 3, Tracy describes that the first and second sound source are midrange drivers (see Col. 2, line 22-24).

As to claims 4 and 5, Tracy discloses that the speaker assembly further includes a first and second tweeter positioned adjacent to the first and second sound source and are mounted

Art Unit: 2837

outwardly in opposition to generate a stereo image (see figure 1 and Col. 6, lines 20-25).

Referring to claim 6, Tracy describes the relative angle to which the first and second tweeters are mounted (see Col. 6, lines 1-4).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tracy and Kato et al. as applied to claim 1 above, and further in view of Parrella et al. U.S. Patent No. 6,215,884.

Referring to claim 7, Tracy and Kato et al. addressed the limitations of claim 1 above. Tracy describes the use of electrical crossover between the first sound source and the second sound source and the tweeters. However, does not describe having a public address driver included. On the other hand, Parrella et al. discloses a piezo speaker for improved passenger cabin audio system (see figure 11 and 12 and respective portions of the specifications). Parrella further discloses a public address system installed within the crossover network and the piezoelectric elements 102-105 (see figure 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt a public address system within a crossover network as Tracy discloses for the purpose/advantages

Art Unit: 2837

of splitting the audio into its high and lower frequency components as it is transmitted from the public address driver.

Allowable Subject Matter

8. Claims 11-14 and 16-18 are allowed.

9. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 8 is allowable in view of the limitation that the prior art of record does not disclose or suggest a speaker assembly wherein a first and second sound source includes a cone having an interior surface that faces a wall of the first and second support housing and where an exterior upper edge of the cone is attached to the support housing to seal off a space defined by the interior surface of the cone, and wherein the wall of the first and second support housing includes a port being of a size less than the cone so as to cover a portion of the speaker to alter the frequency response.

Claim 11 is allowable in view of the limitation that the prior art of record does not disclose or suggest a loudspeaker assembly having a tweeter position adjacent to a speaker and wherein a speaker housing having a first and second wall between

Art Unit: 2837

which is positioned a speaker, includes a cover member, which is a port form in the second wall being of a size less than the speaker so as to cover a portion of the speaker. Additionally the cover members create a physical crossover network instead of an electrical crossover network.

Conclusion

11. The references listed on the enclosed form 892 and not specifically relied upon are considered pertinent to applicant's disclosure to further show the state of the art.


Art Unit: 2837

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (703) 305-8415. The examiner can normally be reached on Monday thru Thursday 7:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Nappi can be reached on (703) 308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ECS
May 29, 2003


ROBERT E. NAPPI
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